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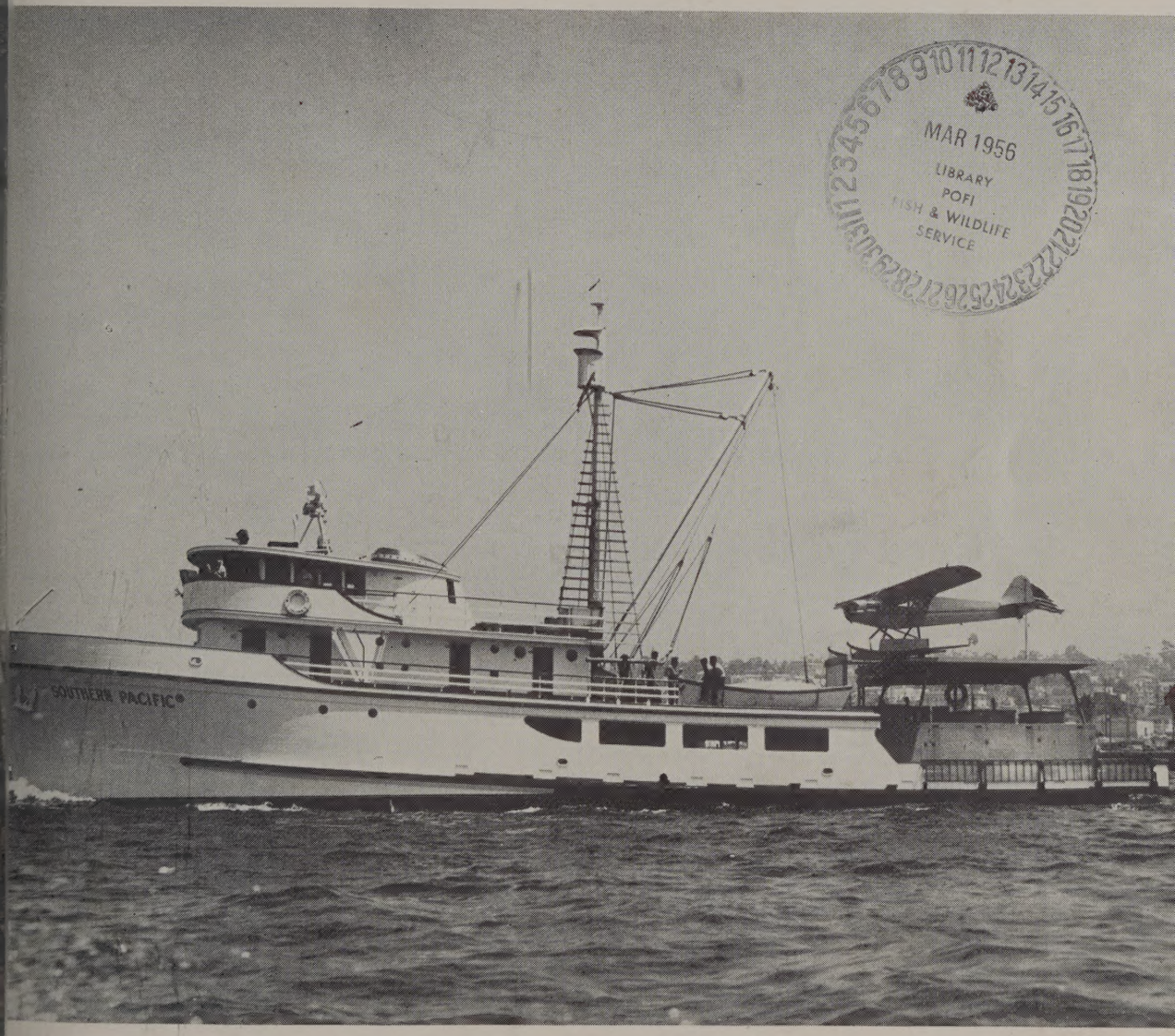

In this issue . . . **YEAR OF DECISION • TUNA INDUSTRY PROBLEMS**

PLACE OF THE HERRING

J. D. ZELLERBACH

Portrait by Fabian Bac

"Good business is for everybody...

"At Crown Zellerbach we have 24,000 employees who, like the company, have bills to pay, plans to finance, and emergencies to anticipate. This requires saving.

"Crown Zellerbach saves a portion of its annual income in U. S. Government securities. This saving is safe, systematic and, with interest, profitable. Our employees follow the same 'Good business' practice through the Payroll Savings Plan.

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We're Pulling for . . .

A BETTER 1956

ALTHOUGH 1955 was not everything desired by most fishery interests, things are looking up for the future. Some of our most troublesome problems are being recognized and helpful solutions searched out — by both business and government authorities.

With the American economy in general on a high level, and most lines of business apparently destined to remain quite satisfactory, we hope that 1956 will also bring real improvement in the fisheries situation.

Our efforts now and always are dedicated to the creation of bigger and better markets for canned tuna, and to advance the best interests of the entire tuna industry.

CALIFORNIA FISH CANNERS ASSOCIATION INC.

Breast-O'-Chicken, Inc. · California Marine Curing & Packing Company
Coast Fisheries (Division of the Quaker Oats Company)
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High Seas Tuna Packing Company, Inc. · Pan-Pacific Fisheries, Inc.
South Coast Fisheries, Inc. · South Pacific Canning Company
Star-Kist Foods, Inc. · Sun Harbor Packing Company
Van Camp Sea Food Company, Inc.
West Coast Packing Corporation · Western Canners Company

Fish Parade Dates Set

The week of October 29 to November 3 was selected as the 1956 period for the annual Fish Week, to be called "Fish Parade," at a meeting of an all-fisheries industry committee in Atlantic City on January 21, during the annual convention of the National Canners Association.

Chairmanned by Harry A. Trimm, manager of the fisheries section of Birds Eye Foods, the fisheries group voted to expand the activities of the Fish Parade, which proved so successful last October. It will be the aim of the group to develop a major selling season out of the Fall period, through Fish Parade promotion, which will include trade press advertising, promotional aids, publicity, tie-ins and individual company advertising.

In opening the meeting, Mr. Trimm said that on very short notice, the 1955 Fish Parade proved to be highly successful and that retailers, processors and distributors had asked that the promotion be repeated on a larger scale in 1956.

John L. Farley, Director of Fish and Wildlife Service, U.S. Department of the Interior, assured the group of the support and cooperation of the Service, "It is very heartening," he said, "to see an industry like the fisheries get together on a joint promotion involving all segments of the business."

F. M. Bundy, president of Gorton-Pew Fisheries Co., Ltd., Gloucester, was named chairman of the finance committee of the Fish Week promotion.

A meeting of representatives of all segments of the fishing industry will be announced soon, and at this meeting detailed plans for the Fish Parade promotion will be developed.

Sockeye Fishing Controls

Recommendations for regulatory control of sockeye fishing during 1956 in Convention waters have been officially approved by the International Pacific Salmon Fisheries Commission and are being submitted to the governments concerned, reports Robert J. Schoettler, Chairman of the Commission.

The three principal objections of the Advisory Committee to the original recommendations submitted for their consideration in Vancouver, B C., last December have been favor ably considered by the Commissio and the original recommendation have been amended accordingly. Th three recommendations are:

1. The closing of territorial water in the United States lying westerly o the Coast of Washington betwee Tatoosh Island and the intersectio of the 48th parallel to sockeye fish ing from June 28 to August 5 inclu sive.

2. The closing of that portion o the Straits of Juan de Fuca lying i the United States between Tatoos Island and Angeles Point to sockey fishing from June 28 to August inclusive.

3. The relinquishment of sockey fishing controls in Areas 17 and 1 and District No. 1 of Canadian Con vention waters of September 19 in stead of September 26.

The approved reduction in fishin area in both United States and Can dian Convention waters is considere necessary to provide adequate raci escapements from the relatively sma sockeye runs expected in 1956.

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"BUSINESS MAGAZINE OF THE WEST COAST FISHERIES"

BRIANT SANDO—Editor and Publisher

ROBERT K. LAWSON
Associate Editor

STAFF PHOTOGRAPHERS
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About This Issue . . .

HOTTEST subject in tuna circles these days is the Wilson Bill, recently introduced in the U.S. House by Rep. Bob Wilson of San Diego. The latter elaborates on his views in an interesting article, "Year of Decision" on page 14.

*

Backing up the above is another article by Harold Cary of the American Tunaboat Association, "Tuna Industry Problems" on page 12. But not everybody in the industry is in complete agreement with some of the recommendations . . . see pages 7 and 8 of the "Report from Washington."

*

The front cover illustration shows one of the West Coast's most illustrious tuna clippers, the *T/V Southern Pacific.* Built by the J. M. Martinac Shipbuilding Corp., Tacoma, Washington, well known designers and builders of many types of commercial and government craft, here are the main "facts of life" on the *Southern Pacific:*

Length over all, 123½ ft. Beam 27½ ft. Fish capacity 280 tons. Main engine, 800 h.p. 8 cyl. Enterprise; auxiliaries, two 100 KW and one 60 KW General Motors Diesels. Pumps, Fairbanks - Morse. Navigation: Sperry steering engine and automatic pilot; radar, fathometer; 500 watt radio.

Keel was laid April 17, 1951; launched October 20, 1951; delivered December 15, 1951. Sponsor, Mrs. Joseph S. Martinac. Skipper, Luciano Brito. Engineer, Bill Williams. Owners, Lu Brito and Associates.

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Insuring the Present . . . and the Future

As in the Past . . . So in the Future

All Activities of the American Tunaboat Association

Are Directed to the Improvement and Prosperity

of the Tuna Industry

Joseph E. Penacho
President

Harold F. Cary
General Manager

AMERICAN TUNABOAT ASSOCIATION

No. 1 TUNA LANE • SAN DIEGO, CALIFORNIA

Report from **Washington**

Items Gleaned from the Nation's Capital

NGRESSIONAL ACTIVITIES.--Up to now, the "activities" have been mostly lk . . . although some of it has been important in laying the founda- on for future action. Insiders here expect little decisive action to be ken during the next few months.

This is largely because the final session of the 84th Congress is ing used by both political parties as a springboard for the November ections. Each side will "view with alarm" the words and actions of the her fellow. This is always a part of every election year . . . in fact is a part of the good old American way of doing things. It gets the ints at issue before the people--and the people's vote will decide quite few things in this fall's elections.

The big uncertainty during this month of February is the future of esident Eisenhower. Will he run again or won't he? After his medical sts and reports are concluded (around February 15) then comes the time decision for Ike. The politicians in both parties want him to hurry d announce one way or the other, but there is no sound reason for haste. r best information is that the yes-and-no chances remain 50-50 and the nouncement date will be around March 1.

--o--

SHERY ACTIVITIES.--Judging by the number of bills introduced in the use, there's no hotter subject to be considered than that pertaining to S. commercial fishing interests.

This started off with the fisheries bill, H.R. 8001, introduced by presentative Bob Wilson of California, following suggestions of the erican Tunaboat Association of San Diego. Views of the latter have been t forth at considerable length in this publication during the last few nths.

The official record describes this proposed legislation and its esent status as follows: Commercial fisheries national policy: H.R. 01 (Wilson of California) introduced in House January 3. A bill to tablish a national policy with respect to commercial fisheries; to tablish the office of Assistant Secretary of Commerce for Commercial sheries, and define his functions, powers, and responsibilities; to engthen the commercial fisheries segment of the national economy; and r other purposes; referred to the Committee on Merchant Marine and sheries."

This matter is still in Committee and likely to remain there for me time, but meanwhile about 30 identical or similar bills have been troduced by other Congressmen in an effort to strengthen the position fisheries in general . . . and apparently the end is not yet in sight.

INDUSTRY VIEWS DIFFER.--There are many divergent views in the industry regarding the merits of the Wilson bill and all the others that are identical or similar, particularly those that retain (and most of them do) its Sections 5 and 7. Insiders here are in pretty general agreement that these two Sections will never pass the Congress, and they may end up by killing off most or all of the bill.

For example, the National Fisheries Institute, Inc. and the National Canners Association, both with headquarters here in Washington and both powerful forces in the commercial fishing industry, have not endorsed the Wilson bill. They are not actively working against it, neither are they "for" it.

The viewpoint of NFI is that of "no formal position as yet on the legislation; our Legislative Committee, officers and members are studying the bill carefully. Many are opposed to parts of the bill; only a few have indicated all-out support; its contents are of such importance that our members need more time to study it."

--o--

SOME STAND OPPOSED.--The Fishery Products Committee of the National Canners Association met in Atlantic City in late January and went on record in opposition to the Wilson bill and those of similar nature.

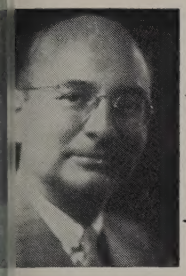
Also, the Coordinating Committee of the Canned Salmon Industry considered the legislation at its January meeting in Seattle and reaffirmed its previous position that, "The Salmon Industry will neither support nor oppose Congressman Wilson's bill." This action referred primarily to the proposal to transfer commercial fisheries from the Interior Department to the Department of Commerce.

In the meantime, duplicates of the Wilson bill continue to be introduced upon request by many Congressmen. In other years when this industry has asked Congressmen to sponsor legislation these requests were supported by many segments of the industry . . . which is not the case this time. Over a period of years the fishing industry has won many friends in Congress, and they need to know that the industry is not united behind this legislation; otherwise, later on, when parts of the industry oppose it, they may feel that the fishing industry is letting them down. That would be most unfortunate for the fishing industry at large.

--o--

SENATOR MAGNUSON WORKING ON LEGISLATION.--Following extensive hearings last Fall on the West Coast on the problems of the fishing industry, Senator Warren G. Magnuson (Dem.-Wash.), Chairman of the Senate Committee on Interstate and Foreign Commerce, is making plans to introduce legislation designed to establish a national policy for the fisheries of the nation.

Frank Pellegrini, Counsel for the Committee, and Irvin Hoff, Administrative Assistant to Senator Magnuson, are working on the draft, together with Milo Moore, fisheries expert on the Committee staff. They expect to discuss details of the measure with representatives of the fishing industry . . . and it is believed this bill will avoid some of the controversial points in the Wilson bill. *(Continued on page*



The Publisher's Page

en Doctors Disagree.—You know the old saying, "when
:tors disagree the patient may die." This is what
nes to our mind after reading several of the articles in
issue. They're interesting but different.
Longest is the piece "Tuna Industry Problems" which
ects the viewpoint of the American Tunaboat Associa-
n. Next comes "Year of Decision" by the Honorable
Wilson, U.S. Congressman from California, who is
nsoring fisheries legislation in the Congress . . . with
siderable logic and support.
But this legislation, like some oher bills to be considered
this session of the Congress, may get bogged down
cause it lacks the unanimous backing of the various
erests involved. In this issue the "Report from Wash-
ton" indicates lack of support for the Wilson bill from
potent factors in this industry—the National Fisheries
titute and the Fisheries Division of the National Can-
s Association.
Sections 5 and 7 of the Wilson bill are the ones getting
most brickbats. Perhaps these and a few other minor
nts can be adjusted to the satisfaction of all parties
ncerned . . . before it is too late. We hope so . . . for
good of the legislators, the fishing industry, and the
nomic welfare of the United States.

ion Differences, Too.—A new method of payment to
ermen is being sought by the Fishermen's Union in
gotiations under way with tunaboat owners in San
go.
According to Les Balinger, union secretary-treasurer,
union is asking for a guaranteed payment of $9 to
2.50 a ton delivered, depending on the size of the boat,
stead of a percentage share of the proceeds.
Harold Cary, manager of the American Tunaboat Asso-
tion, representing the boat owners, says that crew
mbers have historically been paid on a share basis,
stead of a guaranteed amount per ton . . . and this
a poor time to change.
In addition to the new basis of payment, the union also
asking that the crews be paid within 10 days after
val in port. At present, crews are paid when the boat
loads at the cannery, and meanwhile must stand watch
the vessels from the time they return to port.
During the past year, boats have been tied up as much
three months and longer, waiting to unload. The pres-
contract expires March 1.

Research Aids Frozen Foods Industry.—Research projects
determine vitamin, mineral and other dietary units
ntent of frozen foods will be carried out during the
xt five years at a cost of $200,000 reports the Birds
e division of General Foods Corp.
The research project will be through grants to univer-
ties, financed by the National Association of Frozen
od Packers and allied suppliers. Researchers will at-
mpt to find new procedures which will guarantee maxi-
um retention of nutrients during all stages of the pro-
ction, storage and use of the foods.
Foods were first experimentally frozen in the "twen-
ties," and were not distributed nationally until the "for-
ties." Spurred by aggressive promotions, each year the
dollar volume of frozen foods has been stimulated by two
factors: cost and quality. Strict adherence to quality
control standards remains paramount.

Here is the quick-frozen packaged food situation today,
only 30 years after its inception: nearly 1,400 packers
are engaged in the business; so are 1,200 distributors and
more than 200,000 retailers. There are 11,000 locker
plants, 3½ million home-freezers, probably over 15 mil-
lion refrigerators with freezer space, nearly 30,000 low-
temperature refrigerator cars, and 7,000 public carrier
refrigerated tucks.

Frozen foods have revolutionized many diverse types of
food production; the "fresh" and the canned foods peo-
ple can profit by looking and learning from these success-
ful methods.

"Advertising Recognition Week."—We're inclined to
agree with those who laugh at many so-called "weeks"—
everything from Goldfish Week to Be-Kind-to-Your-
Mother-in-law Week.

But Advertising Week, being celebrated this month,
is important for the essential service it performs. There's
hardly an hour of the day when our eyes or ears don't
encounter some aspect of advertising—in newspapers,
on the air, in magazines, in store windows.

You can't get away from it. And it's a good thing you
can't. For what led you to buy the suit you're wearing?
Why did you pick out certain brands of soap, or tooth-
paste, or foods? How did you learn about your favorite
car or TV? No doubt advertising played its part. It helps
you to buy wisely because it gives information about
the quality, prices and benefits of things you need.

More than that, advertising stimulates demand, spurs
competition, helps create bigger markets. This means
more sales, more jobs . . . a higher standard of living,
true American progress.

The Dangerous Notion.—Secretary of State John Foster
Dulles knows domestic as well as international problems.
Recently he said: "Federal savings in large amount can be
effected by greater economy and efficiency and by the
people getting rid of the notion that all of their problems
can be solved by dumping them in the lap of Washing-
ton. Washington, too, can help if it rejects the view that,
because the federal government has unlimited powers to
tax incomes, that implies an unlimited responsibility to try
to remedy every ill."

Economy in government will begin when there is a
revival among the people of local and individual respon-
sibility and self-reliance.

Short Short Story.—It was bedtime, and little Jackie had
a question. "Look, mother," he asked, "why can't we pray
once a week, or even once a month? Why do we have to
ask every day for our daily bread?"

Before mother had a chance to reply, Jackie's small
brother David piped up, "So it'll be fresh."

BRIANT SANDO

Age Determination of the Northern Anchovy

By DANIEL J. MILLER

State of California, Department of Fish and Game, Marine Fisheries Branch

WITH the rapid decline of the sardine fishery beginning in 1946-47, California fishermen and processors turned to substitute species. One of these was the northern anchovy *(Engraulis mordax)*. Until 1947, anchovies had been used for bait almost exclusively and the annual catch had seldom exceeded 5,000 tons. Between 1947 and 1951 these fish were canned in moderate amounts and the landings varied from 5,000 to 12,000 tons. In 1952 the tonnage increased to 34,000 and in 1953 to 49,000.

The major part of the anchovy canning has been done by the processors at Monterey. In this Central California area anchovies are also used in small quantities for dead bait. Along the Southern California coast for many years there has been a thriving live bait anchovy fishery. This bait is used chiefly by sport fishermen and in more limited amounts by the commercial men. The live bait anchovy catch of Southern California increased from about 2,000 tons in the early 40's to more than 6,000 tons in 1953.

Because of the use of these fish for live bait and because anchovies are an important forage fish for the larger species fished extensively in California waters by both sport and commercial fishermen, much concern has been expressed over the rapid expansion of the anchovy canning industry. Several plans for control of this expanding fishery have been proposed and the California Fish and Game Commission has refused permits to use anchovies for reduction into meal and oil and has established case pack requirements.

Problems of Life History

Continued public pressure for more stringent regulations made evident the need for basic biological information about this species. To supply this need the Department of Fish and Game increased its investigations on the anchovy and the Cooperative Oceanic Fisheries Investigation added this species to its program of studies. Only by such methods will a solution to the problems of population dynamics be reached and made applicable to management.

Clark and Phillips (1952) published results of the anchovy studies from 1946 through 1951. This introductory work indicated the need for intensive research on certain aspects of the anchovy life history. The most important and difficult was the development of a reliable method for age determination. The responsibility for this fell to the biologists conducting the routine sardine age analysis, two from the California Department of Fish and Game and two from the U.S. Fish and Wildlife Service.

The program of anchovy sampling was expanded to include all California ports of landing. Since north anchovy and Pacific sardine sc are similar in type and structure, anchovy commercial catch sampl and age analysis was conducted i manner similar to that adopted the Pacific sardine and the anch age determinations were made as s as the collections were completed the season.

The usual procedure in condu ing routine age analysis of a ne studied species is to first compl preliminary studies relative to the liability of the method as applied that species. For the anchovy th special studies were conducted sim taneously with the collection a analysis of the first two seaso catch. If the results of these spec studies indicated that anchovy sca could not be read with a suffici degree of reliability then the rout age analysis would be discontinu

The results of these special stud and the age and length compositi of the 1952-53 and the 1953-54 ca confirm the method used to interp the age from the scales of the chovy. Some errors are inherent the method but considerable relia ity can be placed on the findings. fish older than six years was fou In 1952-53 more than half of catch came from the 1950, 1951 a 1952 year classes, anchovies less th three years old. In 1953-54 fish un three years (the 1951, 1952 and 1 year classes) comprised more th 80% of the catch. These data sug that the anchovy is a relatively sh lived fish and that the populatio subject to comparatively rapid tu over.

Salmon or Suckers?

The salmon is a wily beast scientists have psychoanalyzed and find that he is a sucker f mirror. In their experiments with life and times of a salmon they that when he migrates he travel a school which spreads horizont across the stream. Therefore, w he comes to a confined space as a narrow spillway (of the used to pass him around a dam) reluctant to stack himself vertic He likes to see other salmon ou the corner of his eye. So what do do? Simple! An arrangement o flecting mirrors is installed near through the spillway so that Mr. mon sees his own image proj horizontally ad infinitum and is content to enter the channel ac panied by himself!

et's Make Better Use of The Western World's

Ocean Resources

By FRANCIS MINOT
Director
Ocean Resources Institute, Inc.

VER the past 50 years technology has profoundly revolutionized the way of life in the Western world, and is now reaching out into the less "advanced" regions and those where simple agriculture is the predominant occupation. Through such progress, man is rapidly acquiring some control over much of the usable and livable land masses and he now makes important use of the air. Relatively, man has made little inroad into the sea for purposes other than transportation and the hunting of fish; as yet the technological revolution has not been extended to that greater part of the world's surface which is the sea.

At first glance, this would appear to be an astonishing anomaly in light of man's extraordinary technical prowess. But there are many and diverse causes for man's relative neglect of the sea as a source of useful things; an age old fear of its enormity and mystery, the great difficulty of farming it or mining it as compared with the ease of so doing on land, the unique state of non-ownership of the open ocean.

The fact still remains that anything approaching intensive exploitation of the sea still awaits that degree of adventure and reward, and that combination of determination, ingenuity and deliberate action, which have aroused and enabled man to conquer the land and to evolve our modern industrial society. The sea is around us — over 100 million square miles in area and nearly three miles in average depth—and in recent years, man has come to recognize it as an incredibly vast and in a certain sense inexhaustible reservoir of food and raw materials.

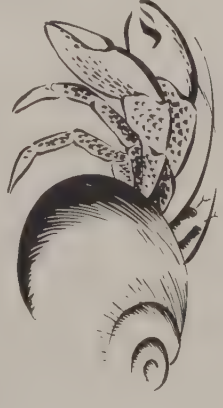
In recognition of the growing need for a new sort of facility to bridge the gap between the oceanographic sciences and the growth of maritime industries, Ocean Resources Institute, Inc., was founded in 1951 as a Massachusetts non-profit corporation dedicated to the purpose of stimulating general technology of the sea and of pondering the social and economic implications of the sea's exploitation. Launched by a grant from the Friendship Fund Inc. of New York City and carried on by other small grants and research contracts, this Institute plans to be an intellectual center and practical laboratory for marine resources.

This Institute is concerned with the utilization of the contents and the properties of the sea: with food, energy and fresh water, with minerals and chemicals, with ships and industrial structures, with winds, waves, currents and weather. It aims to give practical expression to some of the mounting store of knowledge which is being accumulated by the oceanographic sciences, to evaluate this knowledge in terms of human welfare, and to share in the evolution of an "ocean" engineering, the engineering of man's efforts to gain control over the world wide liquid environment of the sea. It hopes, through its permanent staff and part time academic associates, to develop an inquisitive and productive intellectual climate which will encourage individuals from industry and elsewhere to join in work on problems and ideas.

In contrast to the land masses—and now the air above them—the open ocean is unique in that it belongs to no nation nor is its possession as yet claimed or disputed. This Institute is deeply impressed with the significance of this extraordinary feature of non ownership. It hopes that the development of the high seas fisheries may establish a working pattern for the solution of other problems of a similar nature.

The establishment of the Institute of Marine Resources by the University of California through its Scripps Institute of Oceanography shows the seriousness with which a great university and an outstanding oceanographic laboratory regard the resources of the sea. While Ocean Resources Institute does not enjoy the university background of our sister organization in California, our independence and ability to work without regional or other restrictions may prove of equal advantage.

Mankind already has great need for some of the things which the sea can provide: food, fresh water, power. Tomorrow, many more people will have greater need of more of these things and many other marine products. It behooves us to evolve the tools and techniques, the engineering, and the ships *and the men* which will allow us to make good use of the sea as the need becomes more obvious and essential. *



They're Serious and Numerous . . .

TUNA INDUSTRY PROBLEMS

THE domestic tuna producers (fishermen and boat owners) have been seeing their market, their earnings, and opportunities for employment steadily decline. These declines are rapidly accelerating.

Tuna is being imported into the United States in quantities which seriously injure and which will ultimately destroy the domestic fishing industry and the related processing industry. Imports of directly competitive frozen tuna (which is duty free) have increased to the point of supplanting rather than supplementing domestic production.

The tuna producers are alone in being adversely affected not only by imports of frozen tuna but of canned tuna and tuna in any and all forms. The domestic tuna processors ((canners) have been seeing their market increase.

Canned tuna imports (which are dutiable) rose rapidly in the post war period with a levelling off in the past two and one half years. A processor's problem, with respect to imports, basically is a combination of this and the amount of imported frozen tuna he buys or does not buy.

> If he buys the majority or the entirety of his raw material from Japan he has little or no import problem.
>
> If he buys the majority of his raw material from domestic producers his problem tends to increase.
>
> He has the element of choice which the domestic producer does not have.

Tuna producers do not minimize the effect of canned tuna importations (on which a duty is imposed) even though a progressive, steady shift of emphasis has occurred wherein only frozen tuna imports (on which no duty is imposed) have risen alarmingly. A shift could occur where the emphasis could return to canned tuna. Producers understand that this can occur. Producers also believe it foolish to regard the importation of only one form of tuna as threatening their survival.

By HAROLD F. CARY
General Manager
American Tunaboat Association

Domestic processors are in a similar position although some fail to see the relationship of the commodities. This lack of perception has created a class of semi-free traders and semi-protectionists who cry out loudly against imports of canned tuna (which they sell) and urge free trade in frozen tuna (which they buy).

Clear analysis reveals this as a total problem requiring a total solution with no advantage given, as at present, to one industry over the other industry.

Measurement of the Problem

Our government and our separate political parties are in policy accord in regard to expanding trade and in stating that no domestic industry should be seriously injured in that process. The Tariff Commission is considering whether or not there is serious injury to a domestic industry considers certain factors in arriving at a decision. These can be applied to the situation of the tuna produc as follows:

1. *Actual and Relative Imports*

". . . increased imports either tual or relative to domestic prod tion . . ." form one basis for det mining serious injury to the dom tic industry producing like or rectly competitive products.

A. Frozen Tuna

Imports of actual quantities of f zen tuna have increased meteorica since 1948. These imports enter f of duty or quota. Frozen tuna impo in 1948 totaled more than 9 m lion pounds. Frozen imports in 19 totaled more than 123 million poun —an increase of 1250%.

Measured by other comparison The increase amounts to the loss the annual equivalent of 317 tu clipper loads averaging 180 tons each load. Measured in terms average loads of purse seiners or bacore boats the number of los would be enormously increased. T increase amounts to the loss of annual equivalent of about 285,(fishing days for the domestic fish men.

The year 1955 has brought decline in this uptrend. Imports the first eight months, 115 mill pounds, are runing at a rate 2(over last year. Japan is the princi supplier with its over 2 mill pounds in 1948 rising to 98 mill pounds in 1955, about 80% of imports.

Imports of frozen tuna relativ domestic production have shown ilar great increase. Expressed a percentage of the domestic catch, zen tuna imports totaled 2.8% domestic landings in 1948, risin 38.3% in 1954. In 1955 such imp totaled 72.4% of the amount ca by domestic fishermen in the eight months.

These figures illustrate the al ing degree to which frozen im are supplanting rather than sup menting domestic production.

B. Canned Tuna

Imports of actual quantities of ned tuna have increased althoug less spectacular fashion than

nt in frozen tuna. Unlike frozen na, canned tuna is dutiable—can- d tuna in oil being dutiable at % and canned tuna in brine being tiable at 12½%.

Combined imports of both canned mmodities totaled more than 8 llion pounds of processed weight 1948 rising to over 31 million unds in 1954 after having reached eak of over 34 million in 1953.

In 1955, for the first five months, ned imports were running well low 1954. At the end of eight nths, however, the amount was arly up to the 1954 level—with the e indicating that 1954 figures uld be exceeded. Expressed in ms of tons of fish deliveries, can- d tuna imports in 1954 represented re than 30 thousand tons of frozen na.

Japan is the principal source of ned tuna imports accounting for er 90% of the total received. The mestic producer is directly and ad- rsely affected by imports of tuna d tuna like fish in all forms—this tinguishes his position from that the domestic processor.

Share of the Market:

". . . a decline in the proportion of e domestic market supplied by do- mestic producers" is another basis by which serious injury may be determined.

The domestic market is made up of canned goods processed from tuna landings by the domestic fleet and from imported frozen tuna plus imports of canned tuna and tuna-like fish. In 1948 domestic producers (fishermen-boat owners) supplied about 91% of the domestic market. This percentage has progressively declined. In 1953 the domestic producers share was 60% declining to 57% in 1954. The decline has continued thus far 1955. At the end of eight months the domestic producers share was 46%.

Thus the foreign share of our market has grown from under 9% in 1948 to 43% in 1954—with the first eight months showing 54% lost by domestic producers.

3. *Domestic Production*

". . . a downward trend in production . . ." is used as a further measurement in determining whether serious injury to a domestic industry has occurred.

The domestic producers group (fishermen and boat owners) is composed of the very numerous albacore fleet sailing from all ports in California, Oregon, Washington, Alaska and Hawaii, the purse seine fleet from San Pedro and northern California, together with the bait boat (tuna clipper) fleet operating from San Diego and San Pedro.

In 1948 this combined fleet produced almost 166,000 tons of fish which total increased to 196,000 tons in 1950. With the incidence of heavy imports the decline began with 160,000 tons produced in 1951, roughly equivalent to the amount produced in 1954. In 1955 total production is estimated at 145,000 tons.

These figures which show drastic decline do not tell the whole story. The fleet was larger in 1951 than it was in 1948 and 1950, therefore the return per vessel was materially less. This decline can be most accurately measured by comparing the production per vessel capacity ton produced a few years ago with changes since:

In 1948 and 1950 each tuna clipper produced 3.3 tons per year for each capacity ton. This fell to 2.64 tons in 1951 declined further in 1952 and 1953 and rose to 2.91 tons in 1954. In 1955 it is estimated that each vessel will deliver 2.2 tons for

(Continued on page 23)

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How Soon Can the Fishing Boats Unload at Cannery? What Price Will They Get?

YEAR OF DECISION

By Hon. BOB WILSON
U.S. Congressman from San Diego

THIS might well be the year of decision for the San Diego and San Pedro tuna industry, so far as Congressional action to rescue it is concerned.

I have introduced legislation which would give the government new long-range powers to control the rising Japanese imports which for more than five years have imperiled the tuna fisherman.

My bill, which is patterned after recommendations of the American Tunaboat Association of San Diego, also would establish a national policy recognizing that the domestic fishing industry is important to the welfare and security of the nation. And it would shift from the Interior Department to the Commerce Department the commercial fishing functions now under jurisdiction of the Fish and Wildlife Service, at the same time creating an Assistant Commerce Secretary for Fisheries.

In effect the latter would be the fishing industry's voice in the Government.

Another and certainly no less important provision of the bill is that which obligates the President of the United States to adjust tariffs or set quotas on fisheries imports if the U.S. Tariff Commission recommends such action to preserve the industry. At present the Chief Executive can either accept or reject recommendations of the Tariff Commission in these matters.

It is gratifying to know that other members of Congress also recognize the plight of the tuna industry. More than 20 members of the House of Representatives have introduced bills similar to mine. And I have received letters from many others signifying their intentions to co-sponsor this legislation.

We are also moving forward with the next task, that of persuading the House Merchant Marine and Fisheries Committee to hold hearings on the bills. Rep. Herbert Bonner (D.-N. Car.), Chairman of the Committee, has promised me he will call early hearings.

Dr. Wilbur M. Chapman, Research Director of the American Tunaboat Association, was here for seve weeks working on the new legislati approach to the industry's proble

To gather the widest possible su port in the House, I wrote letters about 90 members from Pacific, lantic and Gulf Coast states, calli their attention to the legislation a asking them to sponsor compani bills in the interests of the ent American fishing industry.

Shifting of the Fish and Wildl Service's commercial fisheries fu tions to the Commerce Departm would mean that Congress is foll ing the recommendations of the h authority on the subject we know the Commission on Organization the Executive Branch of Governm headed by Former President Herb Hoover.

The commission task force f recommended separating the comm cial fisheries functions of the F and Wildlife Service from its ju diction over wildlife. The task f explained it this way:

"The inclusion of fishery f tions in the agency also concer with terrestrial wildlife has facilitated adequate attention

sheries problems. The committee ecommends the separation of fish- y functions from those of wild- fe . . ."

he Commission itself in a later ort to Congress went even further said:

"The Commission recommends iat all commercial fishery activi- es of the Department of the In- rior be transferred to a Bureau f Commercial Fisheries in the De- artment of Commerce."

his recommendation would be fol- ed if Congress enacts my bill.

he Assistant Commerce Secretary Fisheries, in a sense, would stand ly to fight the fishing industry's les. One of the chief complaints isheries industry leaders in the has been that there was no such npion anywhere in the Federal ernment. The complaint, I believe, well-founded.

ne thing is certain: the time has e for an all-out battle to build e sort of federal bulwark against eries competition from overseas. far as the tuna industry is con- ed, the best argument in that di- ion is the recent Interior Depart- t report which said the U.S. tuna h dropped 20% last year com- ed to 1954 and the value of the h slipped $17,000,000 in the same comparable years.

lost of those losses had their ma- impact in the San Diego and San ro tuna fleets.

n important reason why we're ing support from other fishing ustries and the members of Con- s who represent other Coastal ons is that they're having their bles, too.

or example, the salmon pack of 5 was the lowest since 1906 and value was $10,000,000 less than 954. The Maine sardine fishery duction was the lowest since 1940. libut landings were off six million nds and earnings to halibut fish- en weer down $2,600,000.

hrimp which recently passed tuna he most valuable U.S. fishery on basis of income to fisherman, was in both catch and value.

o get this legislation through gress by mid-summer will be no nover, believe me. But the fore- ng financial facts of life about the estic fisheries industry has given he weapons for a real fight to t legislation providing a long- n protection for one of the na- 's most important enterprises. *

Improved International Relations

A recent editorial in the Seattle Times states that Western interests have reason to be gratified over the progress in improving international fisheries relations made at the Tokyo meeting of the International North Pacific Fisheries Commission in Tokyo. This is the commission established by treaty on which the United States, Canada and Japan are represented.

One result of the meeting of outstanding importance to this region and its economy was the commission's decision to increase substantially its scientific studies to determine the origin and distribution of Pacific salmon in the northern-ocean waters.

Another was the determination of the American delegation, for its part, to place greater emphasis on the "tagging" of ocean salmon and other scientific inquiries to distinguish racial characteristics of American and Asian salmon and oceanographic research to ascertain the effects of currents, temperature and food supply of fish during their seaward migration.

The commission took cognizance of the diminishing stocks of salmon which have decreased the catch in Alaska waters alarmingly in recent seasons, while the Japanese catch on the high seas has increased rapidly.

The editorial concluded, "For Seattle, another important outcome was the election of Edward W. Allen of this city as chairman of the commission for the coming year and the selection of Seattle for the 1956 meeting. This is the third international fisheries commission Allen has headed."

Canned Foods Safe After Bombings

Canned foods exposed to the big atomic tests in Nevada last spring have been found to be still wholesome and safe to eat, reports George B. Morrill, Jr., President of the National Canners Association.

In a report on the role of canned foods in civil defense planning, Mr. Morrill said that tin and glass-packed foods came through the atomic explosion about as expected. They were generally undamaged, he said, even less than three-fourths of a mile from the blast, unless the package was pierced or broken by flying missiles. Scientists have found that canned foods exposed to the nuclear explosion are still just as rich in nutrients, six months later, as before the blast.

About 25,000 tin and glass-packed foods were subjected to the atomic explosion last May and proved that canned foods are a safe and protective form of food for use by armed forces or by civilian populations under the new type of warfare of this day and age.

Pressure of the atomic blast failed to break any of the tin or glass containers, but it did damage some of the cabinets in which the canned foods were stored and forced some containers to the floor. Even the food in dented cans was demonstrated to be safe, and where containers were critically damaged so as to leak, such damage was readily discernible.

Aureomycin Ice

Aureomycin in ice is the latest way to keep fish fresh longer.

Successful experience with the new method of extending the market range of fresh caught fish was reported by technologists of the Fine Chemicals Division, American Cynamid Company.

The traces of Aureomycin chlortetracycline required to keep fish fresh can be applied in a dip for fish usually handled with a rinse or prechill, and laboratory tests show it makes little difference whether fresh or sea water is used. For fish customarily frozen for shipment by the immersion process, Aureomycin in 10 parts per million can be added to the 22% freezing brine.

In extensive tests on different species, the investigators found that bacterial counts are held to the lowest levels when an Aureomycin dip is followed by packing in Aureomycin ice. All three methods permit fish flesh to take up minute quantities of the protective Aureomycin, but the highest levels found in the tests reported were five parts of the antibiotic per million parts of fish flesh, and most fish retained appreciably less.

Salmon and halibut are not the only catches that will profit. Tests made on a number of different species from many different ports promise widespread savings to fishermen. For example, scrod around Boston lasted 36 days in Aureomycin ice but only 22 days in regular ice.

PLACE OF THE *Herring* IN CALIFORNIA'S FISHERY

By D. H. FRY, Jr.

Senior Marine Biologist,
California Department of Fish and Game

THE BAY BRIDGE
Largest in the world,
connecting San Francisco-Oakland

EACH YEAR on San Francisco and Tomales Bays many men watch and some participate in one of nature's more interesting dramas.

During, January, February and March many millions of herring 8 to 11 inches in length enter San Francisco and Tomales Bay to spawn. Several times each season a wave of fish will enter each of these bays. They are followed by many thousands of hungry sea birds and smaller numbers of sea lions and fishermen. The schools of fish remain for about a week and cormants, grebes, pelicans and sea lions feed on them, and the fishermen net them. The gulls don't do so well, although they do get a few . . . probably no more than enough to whet their appetites.

Overnight the picture changes. During a high tide herring move from the deeper water into shallow areas either rocky or covered with eel grass. There they spawn, and then return to the open ocean. Sometimes all the herring in the bay will spawn and leave in a single unit—more often the process continues over several days.

Spawning Time Excitement

Herring eggs stick to rocks, to eel grass, to pilings, to anything solid, but most of all to other herring eggs. At times all the rocks on a mile of shore line will be covered more than an inch deep with herring eggs.

When the tide goes out, part of the eggs are exposed and the gulls come into their own. Thousands of flapping, fighting, screaming birds eat and eat till they can hold no more. Then they sit, bloated and dopey, but still occasionally picking listlessly at the huge banquet nature has spread before them.

Each low tide this action is repeated with somewhat reduced vehemence, and with fewer eggs remaining. As available eggs get scarce the birds begin to drift away and finally, after about 10 days, the surviving eggs hatch. That part of nature's drama which is visible to the man on the shore has ended—until the next wave of herring enters the bays, two or three weeks hence.

In Tomales Bay the herring spawn in the outer (northern) half of the bay. In San Francisco Bay the pattern is more complicated, but the favored areas include Sausalito, Tiburon, Belvedere, Angel Island and Richmond.

An 80 Year Drama

Man has been playing a part in California's herring drama for more than 80 years. As early as 1875 there was a well established gill net fishery in San Francisco Bay. Continuous statistics on the State's fish landings have been available since 1916 and in that 40-year period there has been a small, moderately steady herring fishery averaging less than a million pounds per year. Gill nets, beach seines, and lamparas have made these catches. The fish are sold fresh, salted, pickled, frozen, etc., and have been used for human consumption, chicken feed and bait.

Over the years Tomales and San Francisco Bays have been the most consistent producers of herring but good catches are often made in Monterey Bay. In the Monterey area the fish are taken in the summer—*not* during the winter and spring spawning runs.

Superimposed on the small fishery described above have been three short time booms which resulted in landings of eight million to over n million pounds in each of the th peak years.

A Four-Year Boom

The first during World Wa lasted four years. The bulk of catches was canned or reduced to meal, but the canned product was appetizing and did not sell well. duction of whole fish was stopped a law enacted in 1921 which mad necessary to obtain a reduction p mit from the Fish and Game C mission. No permits to reduce C fornia herring have been issued.

A second peak occurred in 19 Again the fish were used for can but most of the product tended break up in the can and the fl was not such as to encourage re orders.

The third boom lasted three ye 1951-1953. Part of the herring canned for export and part went canned pet food. Neither type product sold well.

By way of contrast with the of the canned herring, one very product was developed, but it pr so expensive to prepare that the ner abandoned the process.

What About Reduction Permits?

Since 1953 there has been pre on the Commission to issue pe for the reduction of herring into meal, especially in the Tomales area. Because of the failure o sardine fishery numerous sport and some commercial fisherme afraid that if the herring were th open to reduction this fishery w share the sardines' fate. They that the herring must be retain serve as forage fish for salmon other predacious species.

n 1954 the commission instructed Marine Fisheries Branch to e an investigation and determine ther or not a limited amount of action would be safe. Biologists t many days of 1954 and 1955 ering field data by airplane, boat, and hip boot. They also made of a limited amount of previous rmation and the studies made by rs in the vastly larger herring eries of Canada and Alaska. lifornia is the southern limit of Pacific herring fishery.)

he findings are:

That the Tomales Bay herring pulation is not large and that it so easily available to the fisher-n that it could be badly over-hed in a short time.

hat the San Francisco Bay her-; are more numerous and most of n stay in areas of deep water, y shores and vicious tidal cur-s. Fishermen would be less likely eriously over-fish these fish dur-the spawning runs.

uble Jeopardy" Seen Here

hat the Monterey Bay herring umably spawn in San Francisco Tomales Bays. No tagging has n done to prove this point but r spawning areas in California too small to account for the fish ch show up in Monterey Bay each mer. In Monterey Bay the fish scattered over a much larger a, but are relatively available to fisherman. This "double jeop-y" would make proper manage-t of a fishery much more diffi-.

hat under the present law the mission can limit the amount of ing reduced, but not the quanttiy n for any other process. Reduc-a few million pounds of herring ht be safe—but if such reduction e promptly followed by a cannery h of a few more millions, the lt could be disastrous. There are istent rumors of new processes ch will turn herring into tasty ned product and a first class pet d.

he staff's recommendation — *no uction* unless the Legislature first s the commission the power to it the catch of herring by all hods. ★

International Pacific Halibut Commission

The International Pacific Halibut Commission recently concluded its annual meeting at its office and laboratory at the University of Washington. Presiding was its Chairman, Richard Nelson of Vancouver, B. C. During its sessions the Commission met with the scientific staff, with representatives of the vessel owners, dealers and fishermen's organizations of the Pacific Coast and with a newly established nine-man Industry Advisory Group.

The Halibut Commission is responsible to Canada and the United States for the investigation and regulation of the North Pacific halibut fishery, which now produces nearly 75% of the world's halibut catch. When regulations began 24 years ago, the Pacific Coast catch totaled only 44,000,000 pounds and required a nine-month season to make the catch. Under the Commission's management there has been a progressive improvement of the stocks. The annual catch during the past two years has averaged over 65,000,000 pounds and been caught with only two and one-half months of fishing.

The Commission, whose treaty function is the development of the stocks of halibut to levels that will permit the maximum sustained yield, bases its decisions regarding regulation upon the findings of its scientific staff. It reviewed at length the scientific evidence submitted during the sessions, as well as the recommendations of the entire Pacific Coast industry. Due to the abnormal fishing conditions that prevailed during the 1955 season the scientific investigations had not provided the necessary confirmation of the effects of the multiple seasons inaugurated in 1954. Consequently, the Commission decided against any change in the regulations which would alter either the amount or the disposition of fishing during 1956.

A large section of the industry proposed a further splitting of the seasons. After most thorough study the Commission was of the opinion that the need for such a change at this time had not been established by investigations, as is specifically required by the 1953 convention. Accordingly the Commission decided against providing any additional seasons in 1956.

The Commission is recommending to the two Governments the following fishing regulations for the 1956 season.

(1) The fishing areas shall be the same as in 1955.

(2) There shall be no change in the catch limit of 26.5 million pounds for the first season in Area 2.

(3) There shall be no change in the 28 million pound catch limit for the first season in Area 3A.

(4) The opening date for the first halibut fishing season in all areas shall be May 12.

Seton H. Thompson of the U.S. Fish and Wildlife Service was elected Chairman, and S. V. Ozere of the Department of Fisheries of Canada, Vice-Chairman for 1956. Other members of the Commission are Harold Helland and Richard Nelson, representing Canada, and Mattias Madsen and J. W. Mendenhall, representing the United States.

U.S. Representative to Geneva

Harry M. Shooshan, International Activities Assistant, Technical Review Staff, is scheduled to leave for Geneva in February to represent the Department of the Interior at the tariff negotiating conference now convened there. Mr. Shooshan is the Department's representative on the Inter-departmental Trade Agreements Committee and the Committee for Reciprocity Information.

Negotiations are underway at Geneva at which the various country delegations bargain for concessions in each others tariffs. The United States expects to negotiate tariff concessions with about 20 countries, all parties to the General Agreement on Tariffs and Trade (GATT). The U.S. delegation to the Geneva negotiations will be made up of 62 governmental members from the various departments concerned and four non-governmental advisors.

Annual Report of FWS

ANNUAL REPORT of the Fish and Wildlife Service, issued by Secretary of the Interior Douglas McKay, covers the year ending June 30, 1955. It shows the various FWS activities ran the scale from managing the big fur seal herd on the Pribilof Islands of Alaska to efforts to control the sea lampreys which are ruining commercial fishing in the Great Lakes.

Recently developed methods of predicting shad runs in the Hudson and Connecticut rivers proved successful; striped bass research continued; encouraging results were obtained from experimental fertilization of Bare Lake on Kodiak Island to increase red salmon production; electrical devices to guide salmon over dams were further developed; numerous shellfish problems were given attention; a fleet of vessels covered thousands of square miles of Pacific waters in a study of distribution, abundance and identity of tuna and salmon stocks; bacterial diseases of fishes, problems relative to Atlantic herring, yellowtail flounder, whiting, sea scallops and gulf shrimp and a number of other matters relative to the culture and habit of fish came in for field and laboratory scrutiny.

Exploratory fishing operations were continued in the Atlantic and Pacific Oceans and in the Gulf of Mexico. Discoveries of long-range importance to the tuna fishery were made in the central Pacific and in the Gulf of Mexico. New fishing areas for ocean perch shrimp, and albacore were found.

The commercial fisheries in Alaska yielded products which were valued at $78 million in 1954 compared with $70 million in 1953. The salmon pack of 3,094,753 cases, however, was down 12% from the five-year average. Salmon fishing in some areas was considerably curtailed to permit a greater reserve for spawning. Enforcement of the Alaska fishery laws resulted in the convictions of 277 individuals, the acquittal of two and the dismissal of five cases.

The report indicates that to maintain sport fishing the trend is to plant greater quantities of trout of catchable size to keep up with the increasing pressure. During the period covered by the report, the Fish and Wildlife Service operated 89 hatcheries and distributed the product of these hatcheries to waters on Federal lands and to areas near Federal installations. The Service planted almost four million game fish which measured six inches or more at the time of planting. Practically all of these were trout. The total weight of these fish was 767,000 pounds. The Service also reared and distributed 120,000,000 fingerlings, 21,000,000 fry, and 43,000,000 eggs of various species of game and commercial fish.

Reports from the various States show that there were 18.5 million fishing licenses issued during 1954, an increase of nearly a million over 1953.

The Service was engaged with the activities of several international fishery conservation organizations during the year. Two major international conferences were held. Changes which the new International Pacific Halibut Convention made in fishery manag ment resulted in a record catch 71 million pounds of halibut, 18% increase. Activities of the Int national Pacific Salmon Fisher commission resulted in big catches sockeye salmon in the Fraser rive a research program was agreed up by the recently organized Inter tional North Pacific Fisheries Co mission. The fifth annual meeting the International Commission for t Northwest Atlantic Fisheries was he in Ottawa, resulting in a recomme dation to member nations that t size of mesh used in trawls for ha dock and cod off the Nova Sco and Newfoundland banks be limite Agreement was reached with Cana on control of the sea lamprey whi has done great damage to the fi eries of the Great Lakes. Service of cers attended the United Nations I ternational Technical Conference Conservation of Living Resources the Sea, held in Rome in April.

FISH SUPPLIES AND PRICE

IF THE American housewife fails to find canned salmon on her grocer's shelves at any time during 1956, she will find plenty of fish sticks in the freezers, reports FWS's *Commercial Fisheries Outlook* for the first quarter of this year.

Issued quarterly by the Fish and Wildlife Service, this report shows that the Maine sardine pack is the lowest it has been in 15 years but that the tuna supply is ample—and that while cod and haddock fillets, halibut, swordfish, shrimp, salt herring and some fresh-water fish supplies are well below the five-year average, there are plenty of flounder fillets, whiting, and spiny lobster tails.

All of this would indicate a generally steady market for most of the major fishery products with slight price increases for the items which are in short supply.

The salmon pack for 1955 was exceptionally small, both in American and British Columbia fisheries. One result of this small pack is that the packers report that already 95% of their 1955 output has gone into channels of trade. The Alaskan salmon pack for 1955 was 2,385,000 standard cases, 710,000 cases below the 1954 output. British Columbia canners produced 1,406,000 cases, or 304,000 cases below the 1954 ma

While the Maine sardine pack to a sharp drop during the year, t California pack showed an incre but the strong export demand wh is in evidence enhances marketi prospects for the California produ

Hurricanes also hit the oyster dustry during the past two years a the supplies this season will be lig The market is strong and prices w be higher than they were a year a

Because of bad weather in the cl ing days of the halibut season in Pacific, the catch was down 13 m lion pounds. Storage holdings down five million pounds. All which seems to indicate that th will be an increase in halibut pri

America will experience its us midwinter lull in fresh-water f production, but imports from Can are expected to follow their us high midwinter pattern.

Prices on cod, haddock and oc perch fillets will rise slightly then steady.

But America's newest fish mov the fish stick, is stepping into a of gaps. Production for the first months of 1955 was up 45% a the like period in 1954. Supplie present are ample and the prices competitive.

Norway Knows How . . .

NEWS ITEM No. 1—Last week in January Norway announced that its navy had seized 13 Russian fishing trawlers in Norwegian waters and that others are still attempting to invade the 4-mile coastal belt. The Norwegian Embassy in Moscow has been instructed to deliver a sharp protest to the Soviet Foreign Ministry. Observers in Norway said the invasion of the rich herring banks off Norway's western shore is taking on the aspect of a carefully planned campaign. The Soviet trawlers keep returning every time they are chased away by naval vessels. Norwegian fishermen reported between 30 and 80 Russian vessels in this area. Feeling among Norwegian fishermen is said to be running high, and they point out that Russia claims a 12-mile territorial limit as against Norway's 4-mile limit.

NEWS ITEM No. 2—First week in February 16 chastened Russian captains steered their fishing ships toward the open sea, nearly $88,000 poorer for violating Norwegian territorial waters. Norway ignored stern protests from Moscow and kept the ships and nearly 1000 crewmen under port arrest pending disposition by a local court of poaching charges. The court fined the violators a total of $87,365. They paid up and left.

Recent POFI Activities

THE *Hugh M. Smith* successfully completed an 86-day, 13,800 mile cruise during December. This was POFI's contribution to *Eastropic*, a multiple ship operation designed to study the productivity of the eastern equatorial Pacific through observations of the ocean currents, the distribution of oxygen, the nutrient chemicals, the plankton, the forage fish organisms, and the occurrence of tuna schools.

On her eastbound leg, the *Smith* made eight crossings of the northern boundary of the Equatorial Countercurrent before refueling at Manzanillo, Mexico. On her westbound leg she ran several meridional sections across the Equator, and conducted a short survey at the Marquesas Islands.

Along the Equator, radioactive carbon was used by University of Hawaii scientists to determine the rate at which microscopic plans were utilizing the nutrient salts in seawater.

At the request of the Territorial Division of Fish and Game, the *Smith* transported live sardine-like fish from the Marquesas and released them in Hawaiian waters in an attempt to establish a baitfish species in Hawaii which might supplement the local anchovy, or nehu, as live-bait for skipjack fishing.

The *John R. Manning* continued the survey of the yellowfin tuna resources in the Line Islands vicinity. Catches by both longline and trolling were relatively low. A new method of handling the longline gear, in which the mainline is flaked down continuously into a large tub mounted on the deck, was again used—this time with the equivalent of 100 baskets of gear.

As the new method provides a substantial saving in man-power as compared with that used by Japanese longliners, it may eventually provide the answer to profitable exploitation of the yellowfin and bigeye tuna resources of the equatorial Pacific by American fishermen.

POFI biologists and oceanographers are attempting to discover how wind, weather and currents affect the behavior of skipjack, and how these factors, in turn, affect the catch. As part of this program, the *Charles H. Gilbert* completed a detailed survey of oceanographic, plankton and forage food conditions in Hawaiian waters during December.

This survey will be repeated at other seasons of the year and will be supplemented by more frequent small scale monitoring surveys. To aid in locating sub-surface tuna schools and in studying their behavior, special sonar apparatus is being installed on the *Gilbert* during her year-end drydocking. Sea tests of the new equipment will be made early in 1956. ★

Tagged Bigeye Tuna Recaptured

The first tagged bigeye tuna ever recaptured in the Pacific was recently taken by Japanese fishermen. According to A. L. Tester, Director of the Pacific Oceanic Fishery Investigations this fish, known locally as "mebachi shibi" or "ahi," was tagged and released by the U.S. Fish and Wildlife Service research vessel, the *John R. Manning*, on January 31, 1955, at a point 400 miles northeast of Midway Island.

The fish was retaken by a Japanese longline fishing vessel, the No. 5 *Nikko Maru* on November 24, 1955, at a point 690 miles due north of Oahu. The tagged fish had been at liberty for a period of 10 months and moved at least 800 miles during the interval of its freedom. Measurements showed that the fish had grown approximately 10 pounds.

This recovery is the first from a total of 82 bigeye tagged in North Pacific waters by the POFI research vessels between January and September 1955. Besides contributing to the study of growth and migration of bigeye tuna, about which there is very little information to date, the recovery demonstrates excellent cooperation between scientists and commercial fishermen.

Gear Research Vessel

A new gear research and exploratory fishing vessel, the *George M. Bowers*, was commissioned January 7 in Miami, Florida, by the Fish and Wildlife Service.

This addition to the Service's fleet of exploratory fishing vessels has a wooden hull and is 73 feet long. The wooden hull was chosen because a wooden vessel is better suited to the electronic equipment which will be used in the research program. Among other things, the *Bowers* has underwater television equipment which will permit close study of fishing gear operation under water, the effect of gear on any fish habitat on the bottom of the waters, escapement through the nets and numerous other technical questions which have been plaguing commercial fisheries for years.

TIDES OF THE INDUSTRY

Canned Salmon Week

National Canned Salmon Week has been set for February 15 and will extend through February 22, 1956. This publicity campaign, sponsored by the Pacific Coast Conference of Canned Salmon Brokers, will be the salmon industry's means of reminding consumers that canned salmon represents an excellent Lenten food.

Although the 1955 pack of canned salmon in the United States and Alaska was less than anticipated, consumer stocks available are in a wide variety of sizes, ranging from the 4-pound institutional pack to the 1-pound, half-pound, 7-ounce, and quarter-pound sizes for home use. A recent development to further expand the use of canned salmon in specialized diets has been the packing of "dietetic," or sodium-free, salmon in the half and quarter-pound sizes.

Bendix Radar Brochure

A new 8-page, 2-color brochure concerning the new Bendix Marine Radar, Model MR-3A is written in easy to understand language, and at the same time covers complete specifications.

Copies may be obtained by writing for Marine Brochure 120, Pacific Division, Bendix Aviation Corporation, 11600 Sherman Way, North Hollywood, California.

Samoa Cannery Extends Contract with Japanese

The *Saipan Maru,* owned by a Japanese fishing company, has been operating as a floating cold-storage plant at American Samoa under a 6-months' contract with the United States firms operating the tuna cannery on that Island. Recently the contract was renewed until November 1956, according to a translation made from Japanese sources.

The number of fishing vessels to operate out of Samoa during the next year will be 18, and the amount of fish to be taken by the United States firm will be 7,570 tons. Prices per ton to be paid the Japanese company by the United States will be: $275 for albacore; for gilled yellowfin under 90 pounds $180, from 90 to 130 pounds $140, over 130 pounds $100; for spearfish and miscellaneous species $100.

Samoan Chart Issued

The second edition of a nautical chart covering the United States possessions in the Samoan Islands, South Pacific Ocean, has just been announced by Rear Admiral H. Arnold Karo, Director, Coast and Geodetic Survey, U.S. Department of Commerce. It is divided into five sections covering the Manua group, the Samoan group, Rose Island, Pago Pago Harbor and Tutuila Island.

Copies of the chart (No. 4190) are distributed by the sales agents, district offices and the Washington office of the Coast and Geodetic Survey. Price $1.00 per copy.

New Camp Stove and Camp Lantern

Two new items that are of interest to fishermen and outdoorsmen are the Bernz-O-Matic Camp Stove and Camp Lantern. They mark a distinct advance in outdoor cooking and transportable lighting for campers.

The cook stove is easy and convenient to carry on any camping trip; no liquid fuel to haul, no filling or spilling, no pumping or priming.

The camp lantern has no generator, just strike a match and adjust to anything from a soft glow to a wonderfully bright light.

Secret of both outfits is a Fuel Cylinder which burns propane gas, and is easily replaceable. For full information write Otto Bernz Co., Inc., 280 Lyell Ave., Rochester 6, New York.

Fibreglas Products

A 30-page brochure illustrating and describing Fiberglas products used in the marine industry has just been published.

Designed to provide the ship builder and naval architect with a concise summary of the specification compliance of Fiberglas products, the publication includes graphs, tables, sketches and 52 photographs.

Copies of the publication may be obtained from branch offices of Owens-Corning Fibreglas Corp. or by writing the company at its general offices, Toledo 1, Ohio.

"Rupert" Distributor Expands

R. F. Dietrich, Vice President a General Manager of Robbins C Inc., Chicago, the midwestern d tributors for British Columbia Pac ers, Ltd., Vancouver, B. C., Canad announces start of construction of new $300,000 building to facilita the handling of fresh fish and to ke pace with the rapid expansion "Rupert Brand" frozen fish and s foods.

Radio Telephones

Bendix-Marine has announced fi completely new attractively design marine radio telephones. Besides l ing compact and new in outwa appearance, these new phones a made from entirely new circuit designs providing improved sensiti ity, selectivity and noise limiting.

With increased power ranges—2 45, 70, 140 and 250 watts, the low powered units have 6 channels a the higher ones, 8. All have an ill minated channel indicator; a lig gives clear indication at night whi channel is being used.

While frequency coverage is fro 2,000 to 6,000 kc, higher frequenc are available. The new Bendix rad telephones will operate on all sh voltages.

Portable Radio Pilot

An entirely new portable radio loting instrument, the Maxim Rad combines, for the first time, a co pletely modern, self-contained po able radio direction finder with high quality magnetic sighting co pass.

It is said to be unique in that a matter of seconds and without a calculations, the operator can get radio beacon bearings directly on sighting compass. It is unnecessa to read the ship's compass and mathematics or calculations of a nature are required.

Being portable, it serves four p poses: as a complete direct-read portable radio bearing finder; a magnetic sighting compass for tak bearings in good visibility; as spare steering compass; and as a tale compass below decks. Det from The Maxim Silencer Compa 85 Homestead Ave., Hartford, Co

PORT FROM WASHINGTON

(Continued from page 8)

NA LEGISLATION INTRODUCED.--Senator Kuchel (Republican, California), th Sen. Magnuson of Washington introduced S. Res. 186 directing the ited States Tariff Commission to make an investigation to determine ether, as a result of the concession made to Japan in a trade agreement tered into on June 7, 1955, binding the duty-free treatment of fresh frozen albacore tuna, this product is being imported in the United ates in such increased quantities, either actual or relative, as to use or threaten serious injury to the domestic industry producing like directly competitive products. Congressman Cecil King of California d Mrs. Joseph R. Farrington, Delegate from Hawaii, have introduced Res. 377 and H. Res. 378, respectively, in the House. These resolu-ons are similar to S. 186 above.

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GE-HOUR LEGISLATION.--Congressman Roosevelt (Dem.-Calif.) introduced R. 8553, a "bill to amend the Fair Labor Standards Act of 1938, as ended, to provide greater coverage for employees of food industries ose activities affect interstate commerce, and for other purposes." The ll was referred to the Committee on Education and Labor.

Commenting on this bill on the floor of Congress, Congressman osevelt made the following statements:

"In regard to fish-processing exemption, any employee catching, king, harvesting, cultivating, or farming any kind of fish, shellfish, ustacea, sponges, seaweeds, or other aquatic form of animal or vegetable fe is exempted from both the minimum wage and overtime provisions . . . e food-industries aendments would completely strike out this exemption. a result, the $1 million wage and 40-hour week would be brought to is industry."

"The fish processing exemption . . . has no economic reason for isting."

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IP-LEASE RULES POSTPONED.--The ICC has once more postponed--this time til July 1, 1956--the effective date of its controversial trip lease les. The proposed rules would prohibit carriers from leasing trucks for period of less than 30 days and also prohibits the payment of compensa-on for a lease based on a percentage of the rate.

Congress is considering a bill which is designed to prohibit the C from interfering with the present leasing practices of carriers.

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56 FISH PARADE DATES.--The week of October 29 to November 3 was lected as the period for the annual Fish Week, to be called "Fish rade," at a meeting of an all-fisheries industry committee in Atlantic ty during the annual convention of the National Canners Association.

Chairmanned by Harry A. Trimm, manager of the fisheries section of rds Eye Division, General Foods, New York, the fisheries group voted to pand the activities of the Fish Parade, which proved so successful last tober. It will be the aim of the group to develop a major selling season t of the Fall period, through trade press advertising, promotional aids, blicity, tie-ins and individual company advertising.

John L. Farley, Director of Fish and Wildlife Service, U.S. Department of the Interior, assured the group of the support and cooperation of the Service. "It is very heartening," he said, "to see an industry like fisheries get together on a joint promotion involving all segments of the business."

--o--

RAILROADS SEEK ANOTHER INCREASE.--The nation's rail carriers filed a tariff proposing to increase all rates and charges 7% to become effective February 25, 1956. The increases are said to be required to off-set increased wages and other costs amounting to approximately 1½ million dollars per day and the carriers are therefore attempting to rush proceedings through the I.C.C. As an inducement to permit publication of the increases prior to a full hearing, the carriers have offered to refund any differences between the 7% sought and the increase subsequently authorized after hearings.

Secretary of Agriculture Benson petitioned ICC to suspend this application with respect to raw and processed farm products, farm supplies, and fish. The Secretary emphasized that favorable action in the railroad request would, to the extent of the increase, nullify concerted efforts now being made to relieve the difficult economic condition of farmers and fishermen. The secretary stated that because of the continuing cost-price squeeze, this would be an extremely inopportune time to raise freight rates or take action that would widen the spread between prices received by producers and prices paid by consumers. "The President's message," he said, "makes it clear that every effort should be made to narrow this spread, not widen it."

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NORTH PACIFIC HERRING RESEARCH.--A plankton survey of the Gulf of Maine, Georges Bank, and the Bay of Fundy was made in November and December 1955 by the U.S. Fish and Wildlife Service research vessel "T. N. Gill." The purpose of this cruise was to obtain from these areas samples of plankton which will be analyzed for herring larvae . . . an effort designed to learn (1) where herring larvae are produced, (2) the degree of success of this year's spawning, (3) the degree of survival, (4) factors influencing survival, and (5) the patterns of drift of the larvae.

Plankton was collected with a one-meter silk net and with "Hardy" continuous plankton recorders. Two of these recorders were operated while running full speed (approximately 9 knots), along a predetermined track line. One machine is towed at the water's surface and one at the 10-meter depth. These recorders strain out a sample of plankton as they are drawn through the water, collecting it on a moving strip of graduated silk gauze and winding it onto a spool. These spools of gauze are returned to the laboratory for analysis.

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SHRIMP AND TUNA SURVEY IN PERU.--Following a survey (limited as to area covered and time spent) by a shrimp specialist of the U.S. Fish and Wildlife Service, representatives of the Peruvian Division of Commercial Fisheries, and two technical advisors from the U.S. International Cooperation Administration (ICA), it was concluded that the quantity of shrimp in Northern Peruvian waters was not sufficient to support a fishery.

In addition to the survey on shrimp fishing possibilities, the fishery for tuna was studied in the same area. It was found that the recently introduced Japanese long-line method of fishing for tuna offered considerable promise.

NA INDUSTRY PROBLEMS

tinued from page 13)

capacity ton. In the years 1951-
the average decline in produc-
was approximately 17% per ves-
on in this fleet, compared to the
s 1948-1950. In 1955 the com-
tive decline exceeds 30%.

ne ability to produce remains with
domestic fleet—its opportunity
produce is being progressively
royed. The fleet cannot long sur-
this lack of opportunity.

nployment

. . a downward trend of—em-
ment . . ." is another measure-
t of serious injury to a domestic
stry.

here have been significant de-
ses in employment. In the bait
fleet the number of berths avail-
has declined from 2600 in 1950
er rising from 2500 in 1948) to
than 2100 in 1955.

he utilization of this skilled work
e is another evidence of decline.
utilized our fleet 17% less in
1-1954 than we did in 1948-1950.
are utilizing it 39% less this
.

e do not employ as many fisher-
. Those that are employed have
opportunity to go fishing and
their shares.

he increase in imports from 1948
954 measured in amount of days
ired to catch an amount equiva-
to increased imports indicates
of a potential 285,000 days of
ing time. If we compute increases
anned goods imports (tuna and
-like) on the same basis this fig-
is raised to 546,000 fishing days

e do not make the flat assertion
all of this increased flow of
could have been caught or should
been caught by our own fish-
en, but simply that we are entit-
to a just share. Expressed as the
of 546,000 fishing days in one
gives clear emphasis to the enor-
of the import increase and its
ct upon employment of fisher-
.

Wages

. . . a downward trend of—wages"
n indication of serious injury.

fisherman's earnings are based
a share of the fish catch. In the
bait boat fleet the percentage is
rmined by means of a labor
ement negotiated between unions
and boat owners. Because of declining prices and reduced volume of production for the fleet and for each vessel, share earnings have sharply declined.

Using 1948 earnings as an index of 100, earnings in 1951, when imports were sharply felt, dropped to 71.4% of 1948 earnings, these remained constant in 1952, rose in 1954 and a decline to about 60% is indicated for 1955. Thus in the years 1951 to 1955 wages, expressed in terms of share earnings, have declined an average of about 30% for each available berth in the fleet.

6. Prices

". . . a downward trend of—prices . . ." is an indication of serious injury to a domestic industry.

Prices of yellowfin and skipjack tuna are now at levels averaging 69.4% of prices received by boat owners in the year 1948. Two factors combine to cause this decline to have far greater impact upon the boat owners than the percentage decline:

1. Sharp increases in all areas of costs in the same period.

2. Sharp declines in ability of vessels to go fishing.

Profits of owners and earnings of crew members, arise from what remains after expense is deducted from income. The supplier of foreign fish, chiefly and preponderantly the Japanese, has been able to undersell the domestic producer. To meet this situation the boats in the bait boat fleet which are members of the American Tunaboat Association reduced prices four times in less than 12 months. The desperate need of the owner and fisherman is for volume operation—the reduced prices were put in effect to bring this about. Should this fail the boat owner has no alternative actions left to him.

7. Profits

". . . a downward trend of—profits . . ." is an indication of serious injury to a domestic industry.

The story on profits is appallingly clear. Using 1948 as the base year (and as an index of 100), the year 1955 will show losses almost 50% as great as the total profits in 1948. In the years 1951 through 1955 the average profit or loss position of the bait boat fleet has been just about exactly zero. On an average basis, boat owners have been keeping their heads above water because of their depreciation allowances.

8. Other Indications

Other factors must be considered in determining whether or not a domestic industry has suffered serious injury. One of these is investment in new boats or in the replacement of boats lost through obsolescence or casualty.

The bait boat fleet totaled 161 vessels at the end of 1947. By year end 1952 there were 210 active vessels. Presently there are 165 vessels in the fleet, a decline of 21% in the number of vessels and 14% in capacity tonnage. In the year 1953 to 1955 only four new vessels were commissioned. Thus, the fleet has progressively declined in size and increased in age.

The purse seine fleet has similarly declined. Over 100 vessels bought licenses and fished tuna a few years ago. This year less than 70 vessels were available for this operation.

1. The Japanese high seas tuna fleet increased from 272 vessels at the end of 1951 to 436 vessels at the end of 1954—an increase of over 60%. Its tonnage capacity increased 151%.

2. The United States high seas tuna fleet using the bait boats as a measure has declined by 21% in number and 14% in capacity in the same period.

Another item is of grave concern not only to boat owners but to the business community. Unsecured delinquent indebtedness of boats is at an all-time high. There are many local businesses directly and indirectly concerned with the fishing fleet which are caught in a bad credit situation whereby they must carry and cannot liquidate their accounts receivable.

In Summary:

Our per vessel production is off 30%, our share of the market declined from 90% to below 50%, our employment has declined 20%, share earnings are down 30% to 40%, our prices are down 30% and our profits changed to losses.

Imports of frozen tuna are up 1300%, imports of canned tuna after levelling off are now climbing, the foreign share of the market has grown from 9% to over 50%.

A serious situation is clearly indicated. *

The GLOBE

An International News File Compiled from FOREIGN REPORTS

Australia.—A former Australian textile sales manager has established a new factory for processing tuna into tuna chicken and smoked tuna-ham on the south coast of New South Wales. Samples of the two tuna products (which are cooked and ready to eat cold) are said to be attractive in taste and appearance. Cooking time is less than the usual precook for canning, and this is claimed to retain more of the original flavors of the tuna.

French West Africa.—Six tuna boats reached Daker from France to try tuna fishing on a regular commercial scale off West Africa. These boats are from the French fishing fleet normally based at St. Jean de Luz. They are newly-constructed and are said to be capable of remaining at sea for a period of up to 15 days with refrigeration facilities for preserving their catch during that time. This tuna fishing is in the nature of a first trial, but the companies behind the venture believe that the boats will be able to pay expenses and make a profit. The tuna fishing season in this area is not expected to last more than three months and only at the end of that time will it be possible to estimate whether or not continuing operations in future seasons will be profitable.

Great Britain.—Scarcity and unequal distribution of canned salmon available to British consumers was brought up in the House of Commons. The Minister of Agriculture, Fisheries and Food remarked that the British market could absorb greater supplies of canned salmon, but imports have to be limited for balance-of-payments reasons. Quotas for the 1955-56 season have been increased to about US$26.6 million c.i.f. and supplies should be more plentiful in the next few months.

Japan.—Fishermen of northern Japan, eager to enter the profitable northern salmon drift-net fishery but prevented from doing so by the Japanese Fisheries Agency's strict limitation on the number of licenses, are planning to try long lining for salmon on the northern grounds. Under present regulations it is considered that this would be an open unlimited fishery. Basic studies of the method are reportedly being made.

Japan.—The new tuna boat, the "Jingu Maru" (499 tons), returned to port in Japan on December 3, 1955, from its maiden voyage with 330 tons of fish preserved by "air freezing," a method of preservation that is used aboard the tuna motherships but which was being tried for the first time aboard a Japanese tuna long-line boat. The greater part of the load was in such a good state of freshness that it was suitable for consumption as fresh raw fish, despite the four months' duration of the voyage. This success is attracting much attention at Misaki, where it is considered an epoch-making development.

Norway.—The new Norwegian factoryship "Havkvern" (the first of its type) departed on its first trip to the North Sea for herring in December. The 165-foot vessel was built in Germany and has a reduction capacity of 50 tons of raw herring per 24 hours. This new experimental ship will operate both as a trawler and a floating reduction plant for fish meal and fish oil and the production will be sold in England.

Norway.—During a recent session the Norwegian Parliament discussed the advantages of nylon nets and the need for making it easier for Norwegian fishermen to obtain them. As a result, the Parliament voted that US$700,000 be made available in the budget for this purpose. The funds are placed at the disposition of the State's Fisheries Bank for loans to fishermen who wish to secure nylon nets for cod or pollock fishing. The loans can cover 75% of the cost of the nets, up to about US$14 per net.

Peru.—The first experiments using long-line fishing gear for tuna, bonito, shark, and swordfish took place 10 to 100 miles offshore from Callao, Peru, according to a Jnauary 12 dispatch from the United States Overseas Mission at Lima. Results indicated this type of gear would be impractical within the area investigated at depths of 20-40 fathoms because of the abundance of giant squid, which damage and destroy the long lines. It was reported that the new purse-seine vessels (40-50 feet in length) operating out of Callao are adaptable to long-line fishing except for lack of insulation in the holds of the vessel. This would have to be provided for extended trips.

Salvador.—The recent Salvadoran Fisheries Development Law, in addition to granting incentives for the development of the fishing industry through tax and duty exemptions, specifies that waters within a 12-mile limit may be fished only by Salvadoran nationals or companies formed in El Salvador with a minimum of 50% Salvadoran capital. Article 18 of the new law provides for fines of from US$2,000 to US$6,000 for fishing in Salvadorean waters without the proper permission. (The constitution of 1950 designates 200 miles as the offshort limits of Salvadorean territory.)

Scotland.—A bright pink herring drift net is to be tried by a herring boat fishing out of Storonoway, Scotland. The new net, a standard-type drift net, apart from its pink color, is the result of experiments which have been carried out by the Japanese who claim to have discovered that pink is the only color invisible to fish underwater. It is thought that when a pink net is used among a fleet using ordinary dark nets, herring seeking to avoid the other nets will crowd into the invisible pink one.

ish Volume and Values

E 1955 fish catch was 2% below at of 1954 in weight and 10% r in value, according to estimates sed by the Fish and Wildlife ice.

ese estimates which are prelimi- and subject to some modification that the total catch made by rican fisheries in 1955 was),000,000 pounds compared with),000,000 in 1954. The prelimi- estimate of the value indicates the money paid the fishermen he delivered catch will be about below the $360,000,000 paid year.

ie loss in value was due to the p declines in the catches of er priced fish, especially salmon, and halibut. The loss in volume ese fish was compensated to a t extent by increases on the es of cheaper fish such as whit- Alaska herring and a record 1 of menhaden.

and Salmon

ie catch of tuna was about 20% than the 323,000,000 pounds taken in 1954. The value of the tuna catch, based upon incomplete data, is estimated at $35,000,000 compared with $52,000,000 in 1954. During the first 10 months o f 1955, about 129,000,000 pounds of frozen tuna and nearly 42,000,000 pounds of canned tuna and tunalike fishes were imported into the United States. In the same period in 1954, there were 111,000,000 pounds of frozen tuna and 41,000,000 pounds of canned tuna and tunalike fishes imported.

The salmon pack for 1955 was 3,225,000 cases, the lowest pack since 1906, more than 900,000 cases below the 4,162,000 cases packed in 1954 and only a little over one-third of the record 8,955,000 cases packed in 1936.

The year saw record production of fishmeal and good production of fish-oils. Production of fish sticks, a recently created specialty, reached a new high of between 65,000,000 and 70,000,000 pounds compared with 50,000,000 for 1954, seven and a half million pounds in 1953 when production of this product was first undertaken.

Shrimp and haddock, which one year ago showed extremely high inventories and a depressed market, are now practically in balance with good demand and adequate supply.

The salmon catch was valued at $24,000,000 or $10,000,000 below that of 1954. The catch in 1955 was 286,000,000 pounds compared with 323,000,000 in 1954.

Halibut landings of 37,000,000 pounds were down six million pounds from the 1954 catch. The decline was probably due to happen-chance. The International Pacific Halibut Convention which has authority over halibut fisheries sets annual quotas. As the season progresses and the catches are noted a cut-off date is established. In 1954 the last few day of the fishing season proved especially productive and the quota was exceeded. In 1955 the reverse happened and the last few days were unproductive because of weather and the quota was missed. This, added to a decline in price, accounts for the drop in value from $8 million in 1954 to $5.4 million in 1955. *

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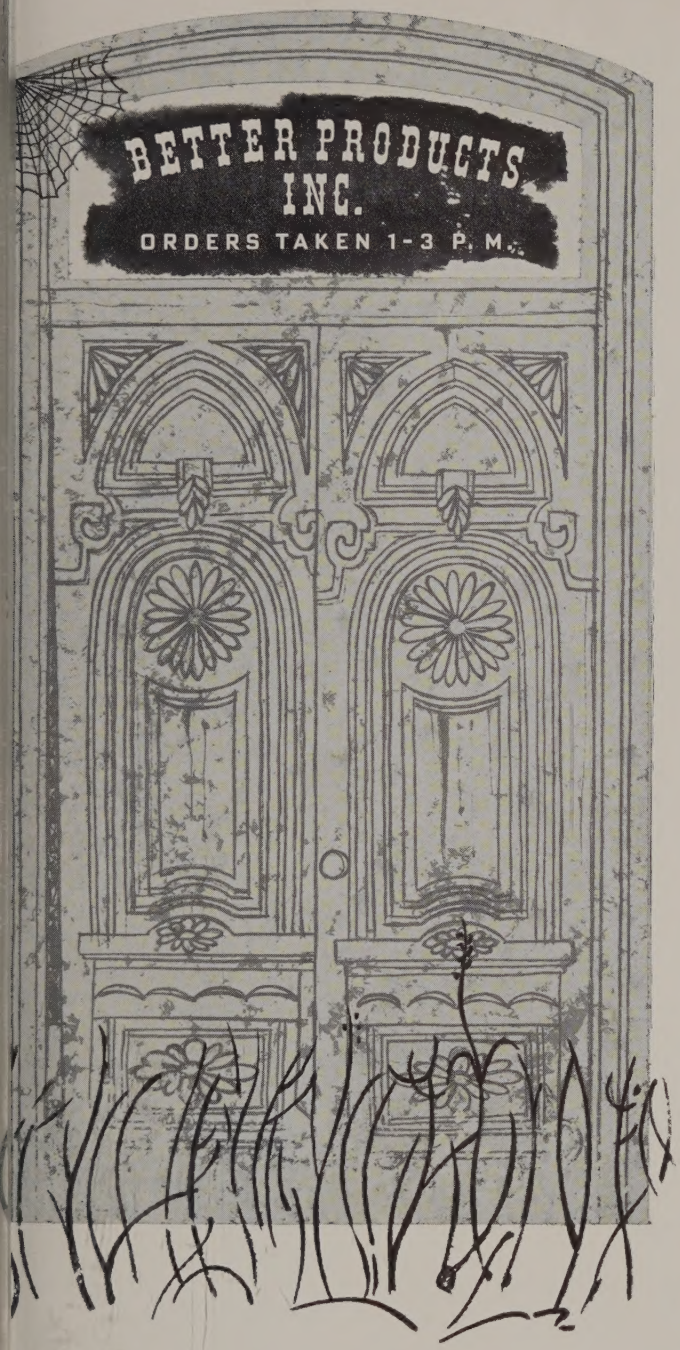

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